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Contribution to the knowledge of the Denticollinae and Negastrinae (Coleoptera, Elateridae) fauna of Turkey

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Abstract: This paper provides new faunistic data about seven species of Denticollinae STEIN & WEISE 1877 (Coleoptera, Elateridae) and one species of Negastrinae NAKANE & KISHII 1956 from Turkey collected different localities between 1970 and 2005. The material is presented together with collecting dates and locality data. For each species new distributional localities were also reported and given with attached maps.

Key words: Coleoptera, Elateridae, Denticollinae, Negastrinae, Fauna, Turkey.

Introduction

Turkey is one of the most interesting countries located in the West Palaearctic region, where most of the insect families including Elateridae are known to survive. Thus, some faunistic studies about the family Elateridae have been conducted by some foreign and native researchers in Turkey. The fauna of this family is quite rich and the studies of SAHLBERG 1912-1913, GUGLIELMI & PLATIA 1985, LODOS 1998, KABALAK & SERT 2005; 2011, GULPERCIN & TEZCAN 2006; 2009, KESDEK et al. 2006, LÖBL & SMETANA 2007 and MERTLIK & PLATIA 2008 have great importance. A short time ago the Distributional Catalogue of Turkish Elateridae (Coleoptera) Fauna has been published (GULPERCIN & TEZCAN 2010). In this publication, a total of 124 species belonging to 19 genera of Denticollinae subfamily and 20 species belonging to 3 genera of Negastrinae subfamily have been listed with their distributional data.

In our study, the present situation of Denticollinae and Negastrinae in Turkey was evaluated. Data on some material of Denticollinae and Negastrinae have been collected but have not been published up to now within the research projects by the researchers of Department of Plant Protection, Faculty of Agriculture, University of Ege, Izmir, Turkey, during 1970-2005 have been given in this paper. They were deposited in the collection of Lodos Entomological Museum, Turkey (LEMT) of the same department. The aim of the present study is to contribute to the knowledge of the Denticollinae and Negastrinae fauna of the Turkey by evaluating the material deposited in this museum.

Provinces of the collected specimens are given in alphabetical order in the following list. Material have been determined by J. Chassain (France), C.M.F. Hayek (Austria), E. L. Gurjeva (USSR), G. Platia (Italy), R. Preiss (England), N. Lodos and N. Gulpercin

(Turkey). Classification and nomenclature of the species of Denticollinae and Negastrinae suggested by LÖBL & SMETANA 2007 have been followed in this study.

Results

In this study, seven species belonging to six genera from Denticollinae and one species belonging to one genus from Negastrinae were recorded. As a result, a total of 211 specimens were recorded. Recent distribution of each species were also given with maps within the text.

Family E l a t e r i d a e LEACH, 1815

Subfamily D e n t i c o l l i n a e STEIN & WEISE, 1877

Genus A n o s t i r u s THOMSON, 1859

Anostirus eschscholtzii FALDERMANN, 1835

Material examined: Kars: Central province, 16.VII.1982, weeds, 2 exs, totally 2 specimens.

Distribution in Turkey: Turkey (LÖBL & SMETANA 2007; MERTLIK & PLATIA 2008); Erzincan (Köse Mountains-Kızıldağ Pass) (DUSANEK & MERTLIK 2004); Artvin (Hatila Valley) (KESDEK et al. 2006). Distributional map of *A. eschscholtzii* in Turkey is given on Fig. 1.

Genus A t h o u s ESCHSCHOLTZ, 1829

Athous haemorrhoidalis (FABRICIUS, 1801)

Material examined: Bilecik: Bozüyük, 27.V.1971, *Populus* sp., 4 exs, Pazaryeri, 25.V.1971, *Prunus domestica* LINNAEUS 1753, 1 ex., Söğüt, 02.VI.1975, *Quercus* sp., 1 ex.; Bursa: Central province, 30.V.1971, *Platanus* sp., 1 ex., *Ulmus* sp., 1 ex.; İzmir: Ödemiş-Bozdağ, 20.V.1970, poaceous plant, 1 ex., 24.V.1972, *Juglans* sp., 2 exs; Kütahya: Central province, 16.VI.1972, *Salix* sp., 1 ex., Domaniç, 19.VI.1975, *P. domestica*, 1 ex., Emet, 19.V.1971, *Rosa* sp., 1 ex., Tavşanlı-Tepecik, 19.V.1971, *P. domestica*, 1 ex.; Manisa: Sultanyaylası, 02.VI.1972, *Juglans* sp., 1 ex., totally 16 specimens.

Distribution in Turkey: Turkey (LÖBL & SMETANA 2007; MERTLIK & PLATIA 2008); A large part of Turkey (LODOS 1998); Ankara (Merkez) (YUKSEL 1970); West Anatolia; Denizli (Babadağ) (SAHLBERG 1912-1913); Ankara (Akyurt, Çubuk, Kızılcahamam) (KABALAK & SERT 2005); Ankara, Erzurum [İçmesu, Şenkaya (Çakırbaba Pass), Turnalı (KESDEK et al. 2006); İzmir [Ödemiş (Bozdağ)] (GULPERCIN & TEZCAN 2009); İzmir (Kemalpaşa) (TEZCAN & GULPERCIN 2009). Distributional map of *A. haemorrhoidalis* in Turkey is given on Fig. 2.

Genus *Hemicrepidius* GERMAR, 1839***Hemicrepidius hirtus* (HERBST, 1784)**

Material examined: Bilecik: Pazaryeri, 18.VI.1976, *Humulus lupulus* LINNAEUS 1753, 1 ex.; Kütahya: Domanıç, 17.VI.1972, *Malus domestica* BORKH 1803, 1 ex., Emet, 17.VI.1972, *Populus* sp., 1 ex.; Muğla: Erentepesi-Akdağlar-2510 m, 12.VIII.2005, 1 ex., Fethiye-Çiçekbabadağ, 13.VIII.2005, 1 ex.; Sakarya: Taraklı, 07.VI.1973, *P. domestica*, 5 exs, totally 10 specimens.

Distribution in Turkey: Turkey (LÖBL & SMETANA 2007; MERTLIK & PLATIA 2008); Kütahya (YUKSEL 1970); Manisa (Bozdağ) (GUGLIELMI & PLATIA 1985); Kütahya (KESDEK et al. 2006); İzmir [Ödemiş (Bozdağ-Büyükçavdar)] (GULPERCIN & TEZCAN 2009). Distributional map of *H. hirtus* in Turkey is given on Fig. 3.

Genus *Nothodes* LECONTE, 1861***Nothodes parvulus* (PANZER, 1799)**

Material examined: Adana: Central province, 02.VI.1984, weeds, 2 exs, Ceyhan, 09.VI.1984, weeds, 1 ex., Tufanbeyli-1640 m, 05.VI.1984, *Pinus* sp., 1 ex.; Adıyaman: Nemrut, 29.IV.1985, *Quercus* sp., 1 ex., *Juniperus* sp., 1 ex.; Antalya: Akseki, 22.VI.1981, *Cedrus* sp., 7 exs, Güllük Dağı, 24.V.1986, *Quercus* sp., 3 exs, Korkuteli-Söğüt, 20.VI.1981, *Juniperus* sp., 1 ex.; Gaziantep: Oğuzeli, 24.IV.1988, *Vicia* sp., 1 ex.; Gümüşhane: Central province, 11.VII.1978, weeds, 1 ex.; İzmir: Tire, 07.VIII.1984, *Castanea* sp., 1 ex.; Kahramanmaraş: Andırın, 30.IV.1988, *Quercus* sp., 1 ex.; Karaman: Ermenek, 27.IV.1979, weeds, 1 ex.; Kastamonu: Devrekani, 04.VI.1980, *Quercus* sp., 2 exs; Kırklareli: Central province, 03.VII.1972, *Fagus* sp., 5 exs, Kırıkköy, 03.VI.1975, *Crataegus* sp., 3 exs; Manisa: Muradiye, 20.XI.1973, under bark of *Salix* sp., 3 exs; Mersin: Gülek, 01.VI.1984, *Juniperus* sp., 1 ex., Gülnar, 25.V.1984, *Quercus* sp., 1 ex.; Osmaniye: Zorkun, 08.V.1985, *Pinus* sp., 2 exs, 13.VII.1986, *Pinus* sp., 15 exs, 18.VII.1986, *Juniperus* sp., 5 exs, Zorkun-1280 m, 08.VI.1984, *Quercus* sp., 1 ex., Zorkun-1590 m, 08.VI.1984, *Pinus* sp., 1 ex.; Tekirdağ: Şarköy, 31.V.1985, *Quercus* sp., 1 ex., totally 62 specimens.

Distribution in Turkey: Turkey (LÖBL & SMETANA 2007; MERTLIK & PLATIA 2008); West Anatolia, Denizli (Sarayköy), İzmir (Menderes) [as *Limonium parvulus* PANZER 1799] (SAHLBERG 1912-1913); Bursa (Uludağ), Mersin (Namrun-Çamlıyayla), Tunceli (Pülümür Pass) (GUGLIELMI & PLATIA 1985); İzmir (Kemalpaşa) (TEZCAN & GULPERCIN 2009). Distributional map of *N. parvulus* in Turkey is given on Fig. 4.

Genus *Prosternon* LATREILLE, 1834***Prosternon syriacum* (BUYSSON, 1891)**

Material examined: Tokat: Almus, 02.VII.1978, *Quercus* sp., 1 ex., totally 1 specimen.

Distribution in Turkey: Turkey (LÖBL & SMETANA 2007; MERTLIK & PLATIA 2008); Ankara (Kızılcahamam), Mersin (Namrun-Çamlıyayla) (GUGLIELMI & PLATIA 1985); Turkey [as *Selatosomus syriacus* BUYSSON 1891] ((LODOS 1998); Erzurum [Oltu (Sütkans)] (KESDEK et al. 2006); Anatolia [as *Prosternon anatolicus* REITTER 1901] (SCHENKLING 1925-1927). Distributional map of *P. syriacum* in Turkey is given on Fig. 5.

***Prosternon tessellatum* (LINNAEUS, 1758)**

Material examined: Amasya: Taşoba-Borabay, 01.VII.1978, *Pinus* sp., 2 exs; Bursa: Uludağ, 18.VII.1972, *Verbascum* sp., 1 ex.; İzmir: Göztepe, 17.V.1973, *Prunus persica* LINNAEUS 1753, 1 ex.; Kastamonu: Küre, 04.VI.1980, *Abies* sp., 1 ex.; Tokat: Almus, 02.VII.1978, *Quercus* sp., 3 exs, totally 8 specimens.

Distribution in Turkey: Turkey (LÖBL & SMETANA 2007; MERTLIK & PLATIA 2008); Bursa (Uludağ), Giresun (Kulakkaya), Trabzon (Zigana Pass), Artvin (Yalnızçam Pass-Şavşat), Bitlis (Tatvan) (GUGLIELMI & PLATIA 1985); Erzurum [Şenkaya (Turnalı)], Kars (Sarıkamış) (KESDEK et al. 2006). Distributional map of *P. tessellatum* in Turkey is given on Fig. 6.

Genus *Selatosomus* STEPHENS, 1830***Selatosomus latus* FABRICIUS, 1801**

Material examined: Ağrı: Cumaçay, 12.V.1978, under stone, 1 ex.; Afyonkarahisar: Kocatepe, 18.VI.1975, *Verbascum* sp., 1 ex.; Bilecik: Pazaryeri, 18.VI.1976, *H. lupulus*, 1 ex.; İzmir: Ödemiş-Bozdağ, 14.V.1973, *Pyrus communis* LINNAEUS 1752, 1 ex.; Mus: Korkut, 14.VI.1975, *Apium graveolens* LINNAEUS 1753, 1 ex.; Şırnak: Beytülşebab, 15.VI.1976, 3 exs, totally 8 specimens.

Distribution in Turkey: Turkey [as *Selatosomus corpulentus* (CANDEZE 1879)] (SCHENKLING 1925-1927); Turkey (LODOS 1998; LÖBL & SMETANA 2007; MERTLIK & PLATIA 2008); Turkey [as *Selatosomus saginatus* (MÉNÉTRIÉS 1832)] (LÖBL & SMETANA 2007); Western Anatolia, common in Turkey [as *Selatosomus gravidus* (GERMAR 1843)] (LODOS 1998); Ardahan, Bursa (Uludağ), Çankırı (İlgaz Mountain), Sivas (Çamlıbel Pass) (GUGLIELMI & PLATIA 1985); Ankara (Çubuk-Tahtayazı) [as *Selatosomus gravidus* (GERMAR 1843)] (KABALAK & SERT 2005); Bitlis, Erzurum, Iğdır (Aralık), Kars [Kağızman (Değirmendere)] [as *Selatosomus gravidus* (GERMAR 1843)] (KESDEK et al. 2006). Distributional map of *S. latus* in Turkey is given on Fig. 7.

Subfamily *Negastriinae* NAKANE & KISHII, 1956**Genus *Quasimus* GOZIS, 1886*****Quasimus minutissimus* (GERMAR, 1817)**

Material examined: Artvin: Central province, 05.IX.1971, *Camellia sinensis* LINNAEUS 1753, 44 exs, Borçka, 02.IX.1971, *M. domestica*, 9 exs, 12.IX.1971, meadow, 1 ex.; Balıkesir: Ayvalık, 23.V.1973, boraginaceous plants, 1 ex.; Bursa: Uludağ, 19.V.1973, *Rubus* sp., 2 exs; Manisa: Central province, 02.VI.1972, weeds, 1 ex.; Ordu: Perşembe, 08.VI.1973, *Morus* sp., 4 exs; Rize: Ardeşen-1400 m, 12.VIII.1971, meadow, 1 ex.; Sakarya: Adapazarı, 16.V.1973, *Corylus avellana* LINNAEUS 1753, 5 exs, Karasu, 16.V.1973, 6 exs, 16.V.1979, *Triticum aestivum* LINNAEUS 1753, 5 exs, Hendek, 14.VII.1972, weeds, 1 ex., 16.V.1973, *Ulmus* sp., 17 exs; Trabzon: Çiçekli, 08.VI.1973, *Quercus* sp., 3 ex., Kavala, 08.VI.1973, *Alnus* sp., 4 exs, totally 104 specimens.

Distribution in Turkey: Turkey (LÖBL & SMETANA 2007; MERTLIK & PLATIA 2008); Western Anatolia, İzmir (Yamanlar Mountain) [as *Hypnoidus minutissimus* GERMAR 1817] (SAHLBERG 1912-1913); Çorum (Boğazkale), Düzce (Akçakoca-Konuralp), Ordu (Gürgentepe Pass), Sinop (Dranaz Mountain), Trabzon (Maçka) (GUGLIELMI & PLATIA 1985); Ankara (Central province, Ayaş), Konya [Güneysınır (Gürağaç), Çumra] (KESDEK et al. 2006). Distributional map of *Q. minutissimus* in Turkey is given on Fig. 8.



Fig. 1: Distribution of *Anostirus eschscholtzii* FALDERMANN, 1835 in Turkey.



Fig. 2: Distribution of *Athous haemorrhoidalis* (FABRICIUS, 1801) in Turkey.



Fig. 3: Distribution of *Hemicrepidius hirtus* (HERBST, 1784) in Turkey.

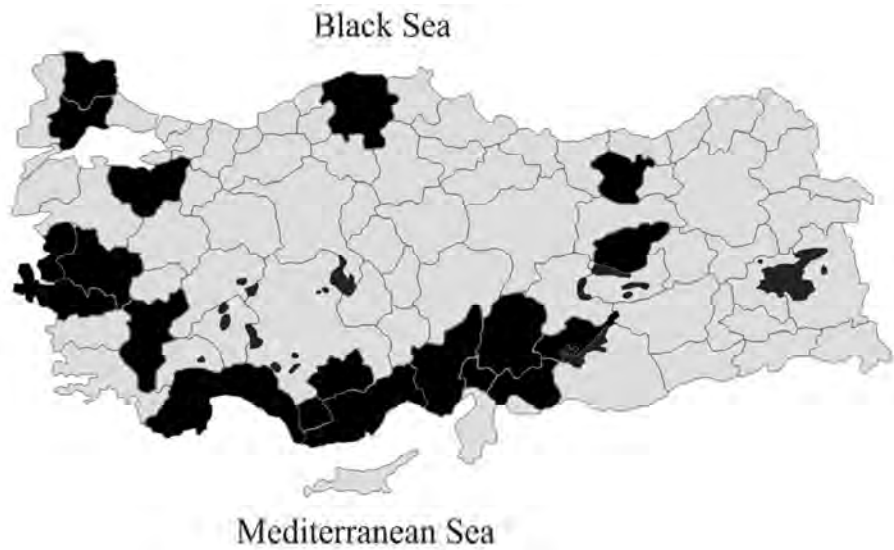


Fig. 4: Distribution of *Nothodes parvulus* (PANZER, 1799) in Turkey.



Fig. 5: Distribution of *Prosternon syriacum* (BUYSSON, 1891) in Turkey.

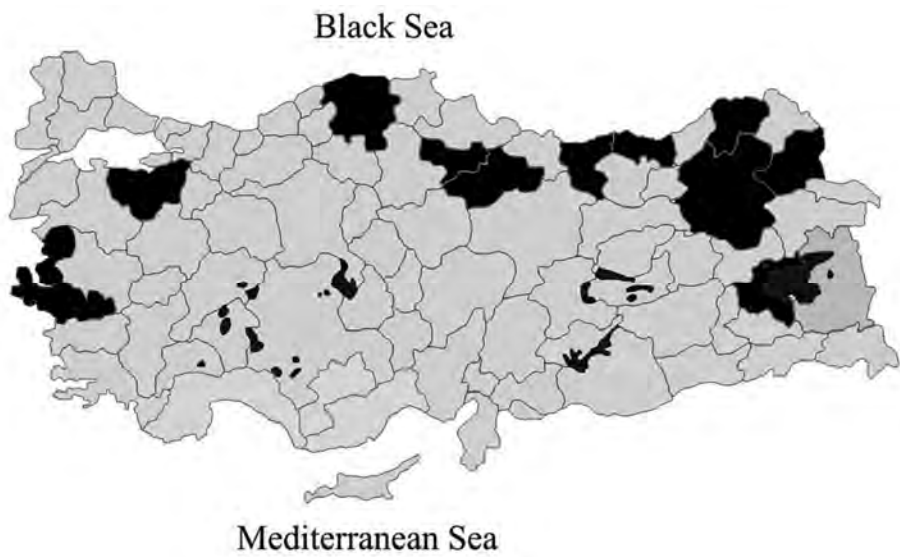


Fig. 6: Distribution of *Prosternon tessellatum* (LINNAEUS, 1758) in Turkey.

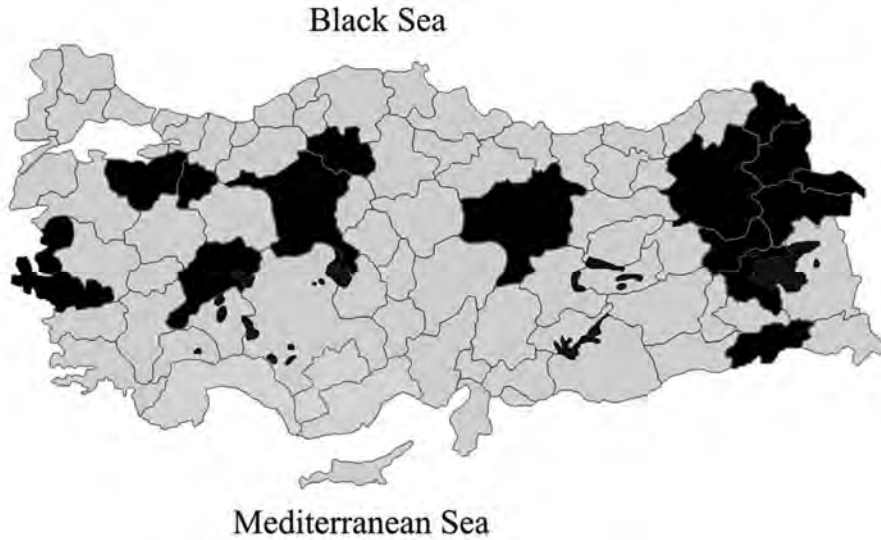


Fig. 7: Distribution of *Selatosomus latus* FABRICIUS, 1801 in Turkey.

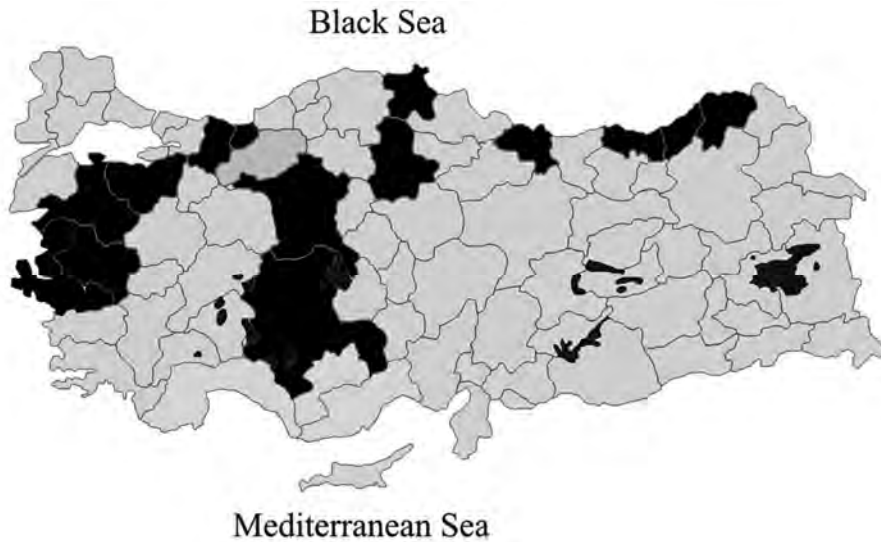


Fig. 8: Distribution of *Quasimus minutissimus* (GERMAR, 1817) in Turkey.

Zusammenfassung

Vorliegende Arbeit behandelt Denticollinae-Negastriinae-Material (Elateridae), das an verschiedenen Orten in der Türkei im Zeitraum 1970 bis 2005 aufgesammelt wurde. Acht Arten aus sieben Gattungen konnten nachgewiesen werden, die Funddaten nebst Verbreitungsangaben für die Türkei wurden festgehalten.

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